

last St. Louis diorama, but Albert McClure accepted a civil service appointment with the Bureau of Reclamation in Denver. Six WPA library project workers assigned to the laboratory from mid-summer 1940 until April 1941 added material to a picture morgue intended for convenient reference by the preparators.⁶²

The pace of change quickened in 1941. As the Jefferson National Expansion Memorial allotment ran low, it became necessary to furlough employees for lack of funds. Preparators Johnson and Wood left at the end of February. Fiore transferred to another agency in March, and Warthen's furlough began in April. By the end of April the eastern preparation staff consisted only of Bauss, Macy, and five or six CCC enrollees. The curatorial staff had to go also. In March Starrett left the St. Louis project to become assistant park naturalist at what is now Lake Mead National Recreation Area. Hopkins went on furlough in April. Lewis continued on duty to tie up loose ends of the St. Louis museum planning project and mind the division office until Burns returned from his inspection of western park museum matters. July brought an ECW cut that forced the termination of Maxwell Fulcher's clerical position. When Burns got back to Washington in late August, Lewis departed after having been on leave-without-pay status for part of the month, leaving the division chief with no office staff.

Macy transferred to the Navy Department in February 1942. That July lack of regularly appropriated funds required Bauss to go on the St. Louis payroll although remaining headquartered at the Ford's Theatre building. The eastern laboratory ceased to exist when the Office of Strategic Services took over the space and equipment in the building to make flexible relief maps for military use and Bauss became museum specialist for National Capital Parks, a position he filled ably for the rest of his life.⁶³ Transfer of the Museum Division office in October to Chicago, where Park Service administration was centered for the duration, reduced it to its minimum wartime level.

A reprieve allowed one more park museum to open. Park Service acquisition of the Old St. Louis Courthouse by gift in 1940 added the historic but dilapidated structure to the Jefferson National Expansion Memorial. With rehabilitation, the building would provide ample space for the memorial's offices and for a temporary museum containing the sample exhibits the Museum Division had prepared. For the latter, the Service received WPA approval in September 1941 to sponsor work by the St. Louis County unit of the WPA Missouri Art Project.

Burns acted promptly to recall needed staff. Lewis reentered on duty September 15 and went at once to St. Louis to oversee preparation of the museum space and installation of the exhibits. Lee Warthen returned to the Ford's Theatre laboratory in October to help Bauss and Macy pack the exhibits for shipment, remaining until he transferred to the Navy Depart-

ment at year's end. Hopkins, also recalled in October, worked on fur trade questions and other curatorial research in Washington until sent to help install the exhibits. David Rodnick, a social anthropologist from the Branch of Historic Sites, went to St. Louis as an additional curator. The sample exhibits left Washington via railway freight in February 1942, followed by Burns and Bauss in March to unpack them and set the dioramas in place. The local WPA workers spent several months constructing furred wall and exhibit cases while the curators assembled specimens, prepared label copy, and undertook the final installation.⁶⁴

The interim Museum of National Expansion opened in October. It contained only about thirty exhibits but provided a base for the memorial's wartime interpretive program. It also represented a distinct transition in Park Service display methods. Gone were most of the monk's cloth backgrounds, free-standing cases, and illustrations drawn or painted in the museum laboratories. Newfangled fluorescent lamps illuminated the brightly painted interiors of the built-in cases. Cutout cardboard letters formed many of the captions. Specimens supplemented by photographs or photostats of old documents dominated most of the exhibits.⁶⁵ The installation foreshadowed postwar changes.

The Museum Division Program in the West to 1942

When Carl Russell left Berkeley in January 1935 to initiate systematic museum development for eastern parks, the Field Division of Education already had a large operation underway. Its rapid expansion (described at the end of Chapter Two) led to obvious differences between the western and eastern programs, but the two had basic similarities. The ECW/CCC component of the Berkeley organization paralleled generally the Fort Hunt laboratory in the East. Both were funded by the same emergency relief agency and specialized in producing topographic models. They differed principally in the role of the ECW technicians. Those at Fort Hunt were all artists. They concentrated on training the CCC enrollees in model making skills, overseeing their work, and supplementing it as necessary. The Field Division employed a slightly larger number of ECW technicians, including men with curatorial, architectural, and academic experience whom Ansel Hall considered the backbone of his staff. He used them to prepare museum development plans and exhibit plans in the field, to carry out research for exhibit content, and to perform broad supervisory functions in the exhibit laboratories.⁶⁶

East and West also relied in similar ways on PWA funding. In fact PWA supplied the primary focus of museum work for both western and eastern parks from the start of New Deal emergency relief in 1933 through 1937. In 1933 and 1934, as noted previously, PWA allotted money to

construct museums in parks but failed to provide for their contents. Five of these projects were in western parks: administration/museum buildings for Aztec Ruins, Devils Tower, and Scotts Bluff national monuments, an extension of the Mesa Verde Museum, and conversion of Moraine Park Lodge in Rocky Mountain National Park to a museum. While exhibit development for the eastern PWA museums had to wait for funding, Hall could set his ECW and CWA employees to work on these projects at once. ECW technicians and selected CWA workers pushed ahead with the planning and research during 1934 and CWA artists began exhibit preparation. The termination of CWA early that year slowed progress but a fresh host of SERA recipients, although less versatile, allowed some preparation to continue.

At the end of 1934 a reprogramming of \$65,000 in PWA funds permitted exhibit planning and preparation for the eastern projects to start under Russell in Washington. A portion of this money, \$15,100 for the five western projects, went to Berkeley. Hall used much of it to hire a staff of about eight preparators, a curator, and clerical help. This group corresponded in composition and funding to the Morristown laboratory, which was being established about the same time. The western PWA preparators concentrated first on exhibits for the Moraine Park museum but also started some for Aztec Ruins and Scotts Bluff.⁶⁷

As in the East, this first allotment proved woefully inadequate to complete the projects. Hall therefore went to Washington in August 1935 in search of additional funding. He arrived just as the Service prepared to ask for a second reprogramming of PWA money to continue the work of "equipping" park museums. In collaboration with Russell, he drafted a proposal that included not only the PWA-funded buildings but also museum projects in nine additional western parks. The latter entailed upgrading older exhibits, replacing temporary ones, adding individual displays, and outfitting space converted to museum use. Four months later, as noted above, PWA approved the allocation of \$53,000 to do what he had proposed. This was barely half his estimate of what the jobs would cost. He tried to drop some of the projects from the program, but too late.⁶⁸

The PWA preparators, assisted substantially by WPA and CCC workers, produced and installed many creditable exhibits but could not hope to accomplish the whole program. When Russell summarized results in mid-1940, he listed the little museum at Devils Tower as complete. He did the same for the installations at Moraine Park and Mesa Verde, thanks in part to significant help from the talented park staff at the latter. The Aztec Ruins museum still required more exhibits. Scotts Bluff also remained unfinished because a wing for paleontology had been added. The PWA staff was largely responsible for the museum installation at Jenny Lake in Grand Teton and for helping Yosemite and Petrified Forest replace

or expand their exhibits.⁶⁹ Most of the preparators supported by the \$53,000 allocation remained on the payroll until October 1937. After that the western laboratories did not have a PWA staff as such but continued to have important PWA work to do.

In the 1937 fiscal year Public Works allotted \$50,000 to the Park Service for an administration/museum building at Tumacacori National Monument. After a brief altercation between Burns and Hall, the exhibit planning and preparation responsibility came to rest at Berkeley. PWA curator Russell Hastings and Captain D. W. Page prepared the exhibit plan, approved by the director in January but considerably modified as research and preparation continued. The exhibits included three dioramas that engaged the skillful hands of Bartlett Frost as sculptor. One group, depicting a service in the mission church, was enhanced by appropriate recorded music and a touch of animation that made the altar candles appear lighted. The combined effect moved some devout visitors to join the miniature worshipers in kneeling before the altar. Collaboration between the architects and museum planners led to an arched window in the museum framing a striking view of the mission. The introductory display, an electric map tracing Spanish missionary journeys, was less successful. After a WPA craftsman struggled with it for about three years, it finally went to the park with a thick maintenance and operation manual. As Burns doubtless feared, it failed to work satisfactorily.

The 1940 PWA program included two more museums for western parks. Before the impending war stopped production, the Painted Desert museum at Petrified Forest received most of its exhibits but the Walnut Canyon museum got only empty cases. Park interpreters filled them with "temporary" exhibits before the central staff could return to the task after the war. The tendency of such exhibits to become permanent led to more stringent restrictions against local initiative in exhibit installations, for lowered standards in one park undermined the stature of park museums generally.

Although the succession of western PWA projects matched eastern ones, two aspects of the western program had little counterpart in the East. One involved the Works Progress Administration.

Hall's trip to Washington in mid-1935 sought more than the continuation and expansion of his PWA projects. SERA help to the Field Division of Education in the form of about 150 workers was scheduled to end. He had already submitted a comparable proposal for assistance from WPA, a new relief agency. Although Russell wanted none of this low-paid, largely unspecialized manpower for the eastern laboratory, he went along with the idea for the West and for a possible backup if the PWA request failed. Hall did get approval for WPA projects to continue at approximately the same level as the varied tasks SERA had done. The WPA work force seems to

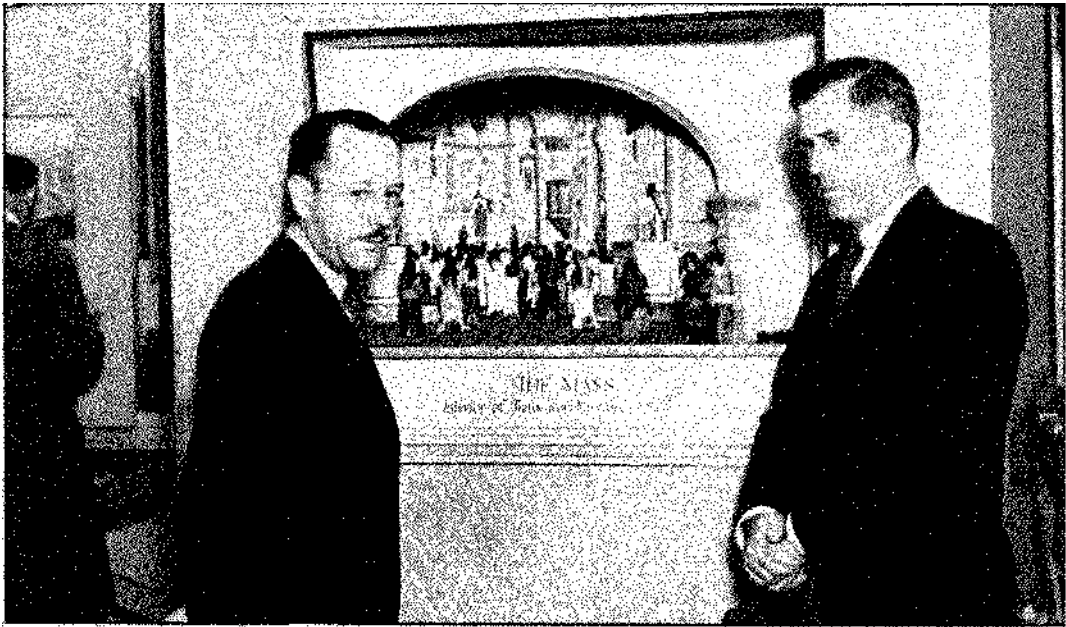
have averaged about 160 through 1939, falling to about 130 in 1940 and 95 in 1941 until the projects terminated that July.⁷⁰

WPA dominated the western museum production program for five and a half years. Most of the workers, like their SERA predecessors, lacked the skills required for specialized exhibit preparation, but their supervisors could direct them in constructing cases and fittings and in supplementing the more creative work of the PWA preparators in other ways. Much of the WPA effort aimed to supply things the western park naturalists needed besides museum exhibits.

With this busy and rather complex program in full swing, Ansel Hall left the Park Service in April 1937. Dorr Yeager, Russell's successor as Hall's assistant, took over as assistant chief of the Museum Division, and the Field Division of Education became the Western Museum Laboratories.⁷¹

Hall's resignation gave Yeager responsibility for five WPA projects, three of them in-house. A Federal Art Project employed 17 people, most of them photographers or artists on relief. Although they doubtless contributed to the preparation of exhibit graphics, their principal product was lantern slides for illustrating lectures in the parks. The project staff colored hundreds of the slides by hand. In July 1937 this group became part of the much larger Museum Project, whose workers included carpenters, a variety of other craftsmen, and numerous support personnel. They built cases, worked on exhibit elements, and also produced most of the miscellaneous products that the Western Laboratories supplied to parks. The third WPA project concentrated on compiling an annotated bibliography of the western parks. It picked up the task begun earlier by CWA in July 1936 and during most of 1937 employed around fifty people, although the number swelled to 103 in May. The project continued at a reduced level until August 1938, then merged into the Museum Project. By that time it had gathered, typed, and filed 63,656 entries. The first thick volume of the bibliography was mimeographed and bound in 1941. The second volume, still incomplete for some parks, was sent to Washington for mimeographing and temporary binding in paper covers.⁷²

The other two WPA projects under Yeager's care worked at a distance. The Southwest Museum in Los Angeles hosted a Federal Art Project until mid-1937. Operating under the immediate supervision of Mark R. Harrington, a leading anthropologist and official of the museum who served in this instance as a Park Service consultant, it had up to 27 selected WPA employees. They produced Indian dioramas for Yosemite and Glacier, illustrations and models for Tumacacori, and a series of accurately costumed miniature figures representing western Indian tribes intended primarily for reference. The Southwest Museum received photographic work from the project in return. As a separate Federal Art Project in San



Western Museum Laboratories, 1937. Dorr G. Yeager (left) views the mass diorama for Tumacacori National Monument with Secretary of Agriculture Henry A. Wallace.

Diego, a WPA photographer assisted by a few National Youth Administration employees supplied the Berkeley laboratories with annotated reference photographs of historic objects accessible in the San Diego vicinity. The Service ended its sponsorship of this project in mid-1937 also. The merger of the museum and bibliography projects a year later left Yeager with only one large WPA project, but by then he had a somewhat comparable NYA project as well. The number of its young workers in training fluctuated monthly from a maximum of 81 in May 1938 down to four in June 1940, when the project terminated.⁷³

Instability in the size of the work force was only one of the factors that made running the Western Museum Laboratories a challenging assignment. After WPA tightened its regulations in 1939 to prevent keeping individuals on project rolls longer than 18 months, the Museum Project lost 81 of its most experienced workers and had to accept untrained replacements. In March 1939 a rent increase forced the laboratories to vacate the building housing the largest unit. New quarters were found in neighboring Emeryville, but a disagreement over the lease kept the workers without heat or electricity until May. Two years later "defense training projects" drained off more of the best WPA help, and July 1941 witnessed the end of the Museum Project. In spite of the headaches inherent in its size and nature, the project and the earlier ones it absorbed served the western museum program well.

To obtain more efficient production Yeager integrated his diverse WPA, NYA, PWA, and ECW/CCC staffs into specialized departments. The

Art Department prepared illustrations, maps, models, dioramas, other graphic devices, and lettering for museum exhibits. The artists also drafted layouts for exhibit plans, designed posters, and used their particular skills as needed. The Shop Department did the woodworking and metalworking, casting, and a wide variety of fabrication. It produced exhibit cases, storage cabinets, and other museum furniture and built special equipment for shop use. The Photographic Department, which for a time had five darkrooms in continual operation, turned out negatives and prints by the thousands. It later included the lantern slide assembly line that Yeager transferred from the Art Department. For most of its existence the Bibliography Project operated outside the departmental units. Each department had workers to handle the necessarily bulky paperwork, keep shop and office equipment in repair, and do routine cleaning and maintenance. As demands from the field grew, Yeager added a Miscellaneous Products Department.⁷⁴

One obvious problem with a large force of unselected emergency relief workers was finding productive tasks within their capabilities. Ansel Hall began the practice of offering the parks various services or equipment these workers could supply. Because the relief agencies paid their salaries, this help cost the parks practically nothing, and many took advantage of the opportunity. The Western Museum Laboratories gained a reputation for service that the eastern laboratory with its unavoidable pay-as-you-go policy could not match.

In April 1938 Yeager issued a catalog of available products and services. Its 21 items included specimen storage cabinets for natural history collections, elaborate filing cabinets for lantern slides, nature trail labels, and such services as mounting herbarium specimens, developing and printing films, and framing pictures. A second edition of the catalog the next year added nine items embracing exhibit cases, filing and carrying equipment for the new 2"x2" kodasides, and more kinds of natural history collecting equipment. Book repairing, map mounting, and a few other services were added in 1941 when the shrinking staff and scarcity of materials eliminated a number of familiar items.⁷⁵ For most products parks paid only transportation costs, although they could be charged for materials if these were expensive or their orders large. A fine museum exhibit case might cost a park \$62 plus shipping—hundreds of dollars less than from a regular manufacturer.

The abundance of "free" labor also permitted the Western Museum Laboratories to try new processes. They produced a successfully animated representation of the "Pacific Circle of Fire" used in an exhibit for Lassen Volcanic National Park and duplicated for Mount Rainier. Yeager had his shop try fluorescent lighting and silkscreen printing in 1938. Soon park naturalists could order colorful silkscreened posters to announce their programs. In 1939 the laboratories started to produce molded thermoplastic

letters for exhibits. The parks ordered stocks of them to caption their temporary displays. After close consultation with Ned Burns, Yeager and his staff designed an exhibit case tightly constructed of oak with a removable plate glass front. The glass was framed with aluminum extrusions patterned after those used by commercial manufacturers of the best museum cases. WPA workers could build the cases and make them practically as dust-tight as factory-built ones. Difficulties in obtaining the extrusions delayed production until August 1940, but the framing arrived in time for the laboratories to furnish cases for several western park museums at the substantial cost savings noted above.⁷⁶

The large emergency relief operation that made possible such developments did not constitute the only signal difference between the western and eastern programs. Following a practice that Ansel Hall had fostered from the beginning of the Field Educational Headquarters, western park naturalists went frequently to Berkeley on short-term assignment. They no longer did so to build their own exhibits but worked particularly on exhibit plans that the laboratories hoped to carry out for them. They could also help assemble data for the preparators and assure accuracy in content. When Yosemite wanted to add a working model to the geological exhibits in its museum, for example, a member of the naturalist's staff collaborated in Berkeley on its design, construction, and necessary mechanical revision. Such shared experiences developed cooperative relationships that helped both the parks and the laboratories.

In much the same way, Berkeley used outside experts on short assignments to assist with exhibit planning and execution. Francois Matthes of the U.S. Geological Survey spent several months with the Berkeley staff in 1937. Fritioff Fryxell came in to plan museums for Grand Teton, Lassen, and Sequoia. Charles W. Sternberg from the University of Chicago was engaged in the summer of 1939 to work on the exhibit plan for the Scotts Bluff wing. In 1940 Yeager rehired Arthur Woodward as a part-time research collaborator to help with plans for the Painted Desert museum and one at Pipe Springs National Monument.⁷⁷

The Western Museum Laboratories provided the exhibits for a number of park museums in addition to the PWA project museums noted above. To complete the one erected by CCC labor in what is now Guernsey State Park, Wyoming, they designed and prepared an unusually graphic set of exhibits during the last half of 1938. The new museum at White Sands National Monument funded by CCC and WPA became the next priority job. Some of its displays were previewed at the International Petroleum Exposition in Tulsa before being installed at the park in June 1940. Exhibits for the Loomis Memorial Museum at Lassen Volcanic National Park constituted the final big project before WPA funding ended. ECW technician Lorenzo Moffett, the sole remaining preparator, installed most

of them at the park in September 1941. The last project on which CCC enrollees worked before their program ended that summer consisted of models for La Purisima Mission State Historical Park, California. Interspersed with these more urgent assignments the laboratories prepared exhibits for the highly regarded Fall River Pass museum in Rocky Mountain National Park and the Colorado River Station in Grand Canyon, a museum for Bandelier National Monument, and temporary museums at Ohanapecosh and Yakima Park, Mount Rainier.⁷⁸

While all this work progressed, Yeager wrestled with growing threats to continued productivity. As in the East preparations for war took precedence. The western laboratories' emergency relief work force disappeared with the cutoff of the WPA projects in July and the CCC detachment in August 1941. Yeager, Moffett, and two clerical helpers had to inventory the large volume of equipment and supplies that remained and get everything moved out of the Emeryville shops to storage in two former CCC barracks at Strawberry Canyon. Various defense agencies accepted many items by transfer; the rest required a second move to storage space in the old San Francisco Mint, where it stayed until after the war. The Old Mint, which would find a later place in the Park Service museum program, also provided some work space. Moffett set up shop there before the end of August. Because the building had only direct current, he could not use power tools. After a fruitless wait he installed AC wiring himself and continued to work on unfinished exhibits until funds to pay his salary ran out in June 1942.

Yeager also worked hard on the transition, although a special assignment called him to Washington for two months in the fall of 1941. Upon his return he began a wartime arrangement whereby he spent half his days on museum matters at Hilgard Hall and half as acting regional naturalist in the San Francisco office of Region Four. He initiated a survey of museum needs in western parks as a basis for setting priorities when planning could resume.⁷⁹ This marked the end of his assignment in the Museum Division. For the remainder of his long Service career he was the western region's chief interpreter, a position in which he continued to support the museum program strongly.

The year 1940, with World War II already underway in Europe, provides a convenient benchmark for charting changes in Park Service museums. The museum survey noted above revealed an almost phenomenal quantitative growth during the Depression decade. A general memorandum that spring summarized parallel developments in museum policy and procedure, which had moved far toward truly professional standards. It stated authoritatively the primary responsibility of the Museum Division in the design and construction of all Service exhibits—those in museums, trailside exhibits and markers, and displays intended for fairs, conventions,

and meetings. By implication, at least, it included historic house museums within division oversight. It confirmed sound guidelines to define the proper scope of park museums and set accession policy accordingly. It prescribed the procedure for preparation and review of museum prospectuses and exhibit plans. For the first time it established a required system of museum accession and catalog records, although a rather loose one that retained older optional forms.⁸⁰ The Service's *Field Manual for Museums*, soon to be published, gave fuller treatment to all these matters and replaced Laurence Vail Coleman's manual as the standard reference for park museums on policy, procedures, and technique.

Two meetings in 1940 also shed light on the state of museum work in the parks. The Region One Historical Technicians Conference met in Richmond at the end of April. The recommendations of a committee headed by Ned Burns emphasized a shortcoming of most park museums: the lack of specimens. The committee urged the historians to collect material objects of interpretive value on a systematic, selective basis and to learn how to use them as interpretive tools. As a corollary Carl Russell advocated more attention to historical research and publication on artifacts. In November the Second Park Naturalists Conference convened at Grand Canyon National Park. Burns again stressed collections and also the need for complete museum records, more adequate housing for exhibits and collections, still better exhibits, and more studies of their effectiveness. He called for closer integration of museum developments into the total interpretive program and increased use of trailside exhibits. Yosemite park naturalist Matthew Beatty presented a statistical analysis that showed exhibits accounting for more than half the total interpretive contacts in the parks, far in excess of the guided field trips that consumed most of the interpreters' time.⁸¹

By 1940 museums had become a major factor in helping visitors enjoy the parks. Professional leadership was pinpointing the aspects of museum management and development most in need of strengthening.

The Wartime Museum Program

World War II upset the normal course of museum work in the Park Service for about five years. The war not only forced strict limitations on manpower and money, it set tasks. At the same time, what the decimated Museum Division and the undermanned park museums were called upon to do as part of the war effort fitted precisely the continuing responsibility of the Service for the resources in its care.

In February 1941 Waldo Leland initiated action to guard the nation's cultural heritage from the growing threat of war. On behalf of the National Resources Planning Board he assembled representatives of such agencies as

the National Park Service, the Smithsonian Institution, the Library of Congress, and the National Archives. They organized a Committee on the Conservation of Cultural Resources with modest funding from the board. The committee set quietly to work on measures aimed to protect important collections from potential enemy attack. They identified remote places where especially valuable collections might be moved for safer storage. They encouraged their institutions and probably others to select in advance which treasures to evacuate. They compiled advice on packing and shipping and on protecting collections left behind. Ned Burns had particular responsibility for recommending methods appropriate for historic objects. He and Ronald Lee helped draft for the committee a manual on protecting cultural resources against the hazards of war. A supplementary handbook compiled by Hans Huth described practices that had given some protection to European collections and historic structures during early years of the war.⁸²

The committee's work led to the evacuation of important national treasures to safe hiding places. Some, especially from the Smithsonian collections, went to a maintenance building in Shenandoah National Park. As part of this process the Park Service in June launched an inventory of the "historical, scientific, and art objects which are regarded as irreplaceable or unusually valuable and, therefore, worthy of special attention in case of a national emergency." The lists, called for by the Advisory Board on National Parks, Historic Sites, Buildings, and Monuments (of which Leland was a member), went to Burns for compilation. He verified returns by visiting most of the vulnerable eastern coastal parks. Shortly after the Pearl Harbor attack brought the United States fully into the conflict, Burns, William Macy, and Rudolf Bauss hastened to pack key items from the Lincoln Museum collection for transport to safety. By January 1942 instructions went out to Colonial National Historical Park, Fort McHenry, Fort Pulaski, Castillo de San Marcos, and Statue of Liberty national monuments, and Boulder Dam National Recreation Area to pack listed specimens for evacuation.⁸³

As the progress of the war lessened the danger of enemy air raids, park museums faced a different hazard foreseen by Burns at the American Association of Museums meeting in May 1942. There he warned against letting patriotic enthusiasm in response to campaigns for scrap metal and paper overcome good curatorial judgment. Curators should be careful to sort out and retain irreplaceable objects and records of historical or artistic significance, he declared. A few months later the Service came under pressure to turn in for scrap all the bronze cannon, statues, and tablets in the parks. In response, it staunchly maintained its obligation to preserve these artifacts for future generations.⁸⁴ The crisis passed within a few

months, and Director Newton B. Drury, who bore the brunt of the pressure, saw his firm stand vindicated.

Foreseeing the economic and related problems that would face the United States when industry shifted from war production to business-as-usual, the Roosevelt administration requested federal agencies to prepare proposals for a postwar public works program. The Park Service responded to this initiative by concentrating much of the effort of its reduced staff on projecting park needs. The first result, an advance survey and planning program, was submitted in December 1943. During the next year and a half the Service refined not only its proposals and estimates, but also its procedures. A memorandum signed by the acting director in June 1945 ordered parks to seek development funding only with project construction proposals, which superintendents were responsible for preparing. Thanks to Burns the memorandum required "proposals for museum buildings [to] include estimates for equipment, such as cases, special lighting devices, etc., and preparation and installation of exhibits."⁸⁵

In late 1942 and 1943 Burns and Yeager energetically gathered and checked data for the advance survey. Information from all project proposals involving museum work was transcribed onto index cards, and the two developed a "price list" of exhibit preparation costs. Lyle Bennett, associate regional architect in Santa Fe, produced a useful "Checklist for Museum Planning." By the end of the war the Service had a long priority list of needed construction projects based on approved proposals and careful cost estimates. The list included a fair share of museums. When the first trickle of construction money became available in the 1946 fiscal year, Burns lost no time in getting work started on the backlog of museum planning.⁸⁶

Another phase of the wartime museum program started first and lasted longest. In October 1940 the Advisory Board on National Parks recorded its belief that both the historical and scenic parks had an important role "in promoting patriotism, in maintaining morale and understanding of the fundamental principles of American democracy, and in inspiring love of our country." It recommended that the Service expand its interpretive efforts, including those involving park museums. Carl Russell carried this message to the Second Park Naturalists Conference a few weeks later. Burns spoke along similar lines at the American Association of Museums meeting in May 1941 and Russell again made the point at the 1942 AAM meeting. The Service's interpretive program nevertheless suffered severe cuts in manpower and funding. Much of the load fell on park museums, which with minimum staffing could still present the objects and ideas the parks were created to preserve. The situation at Yosemite was perhaps typical; practically all the naturalist activities were eliminated, but the park museum remained open throughout the war.⁸⁷

Some strategically located parks maintained more active programs. Castillo de San Marcos in St. Augustine, Florida, installed temporary displays appropriate to the nearby Coast Artillery School. At the Statue of Liberty, the Washington Monument, and the Lincoln Museum at Ford's Theatre, park staff also prepared timely short-term exhibits. Several of the battlefield parks used their still-inadequate museums to supplement training exercises conducted from neighboring military bases. The newly installed temporary museum at the Jefferson National Expansion Memorial aimed its wartime efforts toward the civilian population of St. Louis. It provided a center for a changing series of special exhibitions, a structured program of field trips for local schools and youth groups, illustrated historical talks, and walking or streetcar tours to historic sites in or near the city.⁸⁸

The price park museums paid to remain open and active while undermanned corresponded to that paid by the parks as a whole. Collections languished from lack of curatorial attention and exhibits deteriorated in the absence of adequate maintenance. At the same time, the wartime museum program earned stronger support for the future by establishing a fuller understanding of the needs and potential of museums in the parks.

NOTES

1. Letters, Russell to Betty Russell, Apr. 21, May 13, 1935, Richard W. Russell Personal Files.
2. Letters, Russell to Betty Russell, Jan. 17, Apr. 14, July 6, 1935, *ibid.*
3. Russell referred to the museum division in organization charts and in correspondence to applicants during March and April, if not earlier.
4. Letters, Russell to Betty Russell, Jan. 20, 23, 25, 26, 1935, Richard W. Russell Personal Files; Carl P. Russell Diary, Jan. 19-29, 1935, *ibid.*
5. Russell Diary, Feb. 6, 7, 1935; letters, Russell to Betty Russell, Feb. 8, 18, Mar. 21, Apr. 22, June 10, July 27, Sept. 7, 1935.
6. Letters, Russell to Betty Russell, Feb. 8, Aug. 14, 1935.
7. Competition in case bidding followed the entry of the Michaels Art Bronze Company into the product field.
8. Russell Diary, Feb. 4, 5, 11, 12, 16, 18-20, 21, 1935; letters, Russell to Betty Russell, Jan. 29, Feb. 5, 15, 23, 24, 1935.
9. Letters, Russell to Betty Russell, Mar. 8, 9, 14, 17, 19, 21, 30, Apr. 1, 11, 17, 28, May 24, Aug. 6, 1935.
10. Letter, Russell to Betty Russell, Aug. 6, 1935; letter, Ned J. Burns to Director, Mar. 19, 1937, in Fort McHenry "Gun Museum" exhibitplan, Fort McHenry box, NPS History Collection.

11. Memorandum, Russell to Harold C. Bryant, Apr. 11, 1935, 1935 Museums (73-98) folder, Annual Reports, Branch of Interpretation box, NPS History Collection; letters, Russell to Betty Russell, Jan. 29, Mar. 4, 14, 21, Apr. 5, 7, 1935.
12. Letters, Russell to Betty Russell, Mar. 27, Apr. 7, 9, 11, 12, 14, 16, 20, 1935.
13. Memorandum, Demaray to Museum Curators and Museum Assistants Assigned to Eastern Park Projects, Apr. 10, 1935, Museum Policy binder, R3238, NPS History Collection.
14. Ralph Henry Gabriel, ed., *The Pageant of America* (New Haven: Yale University Press, 1925-29); Francis Trevelyan Miller, ed., *The Photographic History of the Civil War* (New York: Review of Reviews Co., 1911).
15. Ralph H. Lewis, "The Vicksburg National Military Park Museum," *Museum News* 14, no. 19 (Apr. 1, 1937): 8.
16. Disher, a graduate of Pomona College, had worked at the Wayside Museum in Grand Canyon National Park and the Museum of Northern Arizona before undertaking graduate study in anthropology at Harvard, which included field work for the Peabody Museum of Archaeology and Ethnology. Everard was a Yale graduate whose father's position with the American Association of Museums as editor of *Museum News* augmented his familiarity with museum work. Stevens, who had graduated from the University of Chicago and begun a life-long interest in American Indians, was the son of Thomas Wood Stevens, prominent in the dramatic arts field. Starrett had majored in botany at the University of Pittsburgh under O. E. Jennings, who was also curator of botany and head of the education staff at the Carnegie Museum of Natural History. A Dartmouth graduate and one of Clark Wissler's students at Yale and Columbia, Ewers had conducted research at the American Museum of Natural History where Wissler was the curator-in-chief of anthropology. Lewis had taken Foyles' museum methods courses at the University of Rochester and worked part time in the university's natural history museum before undertaking graduate studies in entomology. Titiev had just earned a Ph.D. in anthropology at Harvard and was well acquainted with museum methods as practiced at the Peabody Museum. Memorandum, Russell to Harold C. Bryant, Apr. 11, 1935, 1935 Museums (73-98) folder, Annual Reports, Branch of Interpretation box, NPS History Collection; Carl P. Russell, "Museum Studies Made by the Eastern Museum Division, April to July 1935," *ibid.*; *Park Service Bulletin* 5, no. 4 (May-June 1935): 28, and 8, no. 1 (January-February 1938): 38.
17. Russell, "Museum Studies Made by the Eastern Museum Division"; letters, Russell to Betty Russell, June 19, 24, July 23, 1935; letter, Russell to Ralph H. Lewis, July 11, 1935, Hot Springs National Park box, NPS History Collection; Vernon G. Setser, "Exhibit Plan, Historical Museum, Morristown National Historical Park," Morristown National Historical Park box, *ibid.*
18. Memorandum, Russell to Harold C. Bryant, Apr. 11, 1935, 1935 Museums (73-98) folder, Annual Reports, Branch of Interpretation box, NPS History Collection; letters, Russell to Betty Russell, Apr. 16, 17, 1935; letter, Vernon G. Setser to Elbert Cox, May 29, 1935, in "Exhibit Plan, Historical Museum, Morristown National Historical Park."
19. Letter, Setser to Cox, May 29, 1935; letters, Russell to Betty Russell, Apr. 17, 18, 1935.
20. Letters, Russell to Betty Russell, Feb. 11, 12, Mar. 4, 24, 27, Apr. 2, 12, 16, 20, 26, May 4, 7, June 1, 4, 6, 10, Aug. 4, 6, 14, 1935; *Park Service Bulletin* 5, no. 7 (September 1935): 27.

21. Letter, Russell to Betty Russell, Feb. 23, 1935.
22. Ralph H. Lewis, "Ned J. Burns, Educator, Naturalist, and Museum Expert," *Proceedings of the Stolen Island Institute of Arts and Sciences* 16, no. 2 (Fall 1954): 61-74.
23. Thomas C. Vint, "Report on the Building Program from Allotments of the Public Works Administration, 1933-1937, Western Division, National Park Service," NPS History Collection.
24. Ibid.
25. Letters, Russell to Betty Russell, Jan. 18, Feb. 9, 11, 1935.
26. Letters, Russell to Betty Russell, June 6, 10, 1935. The Ocmulgee National Monument museum building, whose construction was interrupted by World War II, affords a good example of curator-architect collaboration.
27. Museum Policy binder, NPS History Collection.
28. Letter to Betty Russell, Apr. 23, 1935.
29. Letters, Russell to Betty Russell, May 1, 24, July 6, 10, 1935.
30. Russell, "Museum Studies Made by the Eastern Museum Division, Exhibit Plans for Interior Museum," 1935 Museums folder, Annual Reports, Branch of Interpretation box, NPS History Collection; letters, Russell to Betty Russell, Aug. 4, 6, 1935.
31. Museum Division monthly report, March 1938, Monthly Reports, Museum Division 1936-39 box, NPS History Collection; Burns, "The History of Dioramas," *Museum News* 17, no. 16 (Feb. 15, 1940): 8-12.
32. Report of the Morristown Field Laboratory for December 1935, Monthly Reports, Museum Division 1936-39 box, NPS History Collection.
33. After World War II Van Cott became principally responsible, with William C. Macy, for the exhibition program of the Armed Forces Institute of Pathology and Medical Museum. Warthen brought to his painting experience that included service in a Texas penal road gang, the police having seized him as a vagrant early in the Depression. Jansson was a second-generation designer for Steuben Glass. Urban, a fine craftsman, had flown private airplanes before a serious illness. When Jackson died at the age of 99 in 1942, Ned Burns, John Doerr, and Victor Cahalane of the Park Service met the train that brought his body to Washington and attended the burial in Arlington National Cemetery.
34. Monthly Reports, Museum Division 1936-39 box, NPS History Collection.
35. Letters, Russell to Betty Russell, Aug. 23, Sept. 1, 3, 1935.
36. Memorandum, Russell to Harold C. Bryant, Hillory A. Tolson, and Verne E. Chatelain, Jan. 14, 1936, 1936 Museums folder, Annual Reports, Branch of Interpretation box, NPS History Collection; memorandum, Tolson to Russell, Jan. 15, 1936, *ibid.*

37. Letter, Russell to Ansel Hall, Jan. 15, 1936, *ibid.*; memorandum, Kenneth B. Disher to Conrad L. Wirth, Mar. 15, 1936, *ibid.*; memorandum, Russell to Wirth, May 9, 1936, *ibid.*
38. *Park Service Bulletin* 6, no. 7 (August 1936): 26; letter, Russell to Fryxell, May 19, 1936, 1936 Museums folder, Annual Reports, Branch of Interpretation box, NPS History Collection; memorandum, Russell to Burns, June 16, 1936, *ibid.*
39. In 1938 the Branch of Research and Education became the Branch of Research and Information. "Education" sometimes encountered a hostile response in Congress. When "Information" also proved unsatisfactory, "Interpretation" replaced it in October 1940. Concurrent with the 1938 change, branch chiefs became supervisors instead of assistant directors.
40. *Museum News* 14, no. 16 (Feb. 15, 1937): 1, 4; *ibid.* no. 19 (Apr. 1, 1937): 1; *ibid.* no. 20 (Apr. 15, 1937): 1; *ibid.* 15, no. 4 (June 15, 1937): 1; *ibid.* 15, no. 9 (Nov. 1, 1937): 5; *ibid.* 15, no. 18 (Mar. 15, 1938): 1; *ibid.* 16, no. 12 (Dec. 15, 1938): 7-8; *Park Service Bulletin* 7, no. 2 (March 1937): 16-17; *ibid.* no. 4 (April/May 1937): 24; *ibid.* no. 7 (August 1937): 9; Monthly Reports, Museum Division 1936-39 box, NPS History Collection.
41. Park Service procurement officer Roger Rittase appreciated the need for exceptions to standard practice, for he was himself a competent artist painting as a hobby.
42. A director's memorandum to all field offices of October 21, 1936, focused exhibit preparation and revision in the Museum Division laboratories (Museum Policy binder, NPS History Collection).
43. See reports for eastern park museums, January and July 1937, in Monthly Reports, Museum Division 1936-39 box, NPS History Collection.
44. *Park Service Bulletin* 8, no. 8 (November/December 1938): 27; memorandum, Carl Russell to Ned Burns, June 16, 1936, 1936 Museums folder, Annual Reports, Branch of Interpretation box, NPS History Collection.
45. Museum Division monthly report, July 1937, Monthly Reports, Museum Division 1936-39 box, NPS History Collection.
46. Secretary's Order No. 1365, Mar. 27, 1939, Museum Policy binder, NPS History collection.
47. Museum Division monthly report, March 1938, Monthly Reports, Museum Division 1936-39 box, NPS History Collection.
48. Museum Division monthly report, October/November 1938, *ibid.* Both curators brought back much from their year of study. Having learned that an exhibit planner must maintain close contact with museum visitors, Lewis obtained permission to observe visitor behavior in the National Museum on weekends under the supervision of Frank Setzler, head curator of anthropology.
49. 1938 Museums folder, Annual Reports, Branch of Interpretation box, NPS History Collection.

50. Russell, "A Museum of the American Fur Trade, Proposed Feature of the Jefferson Memorial, St. Louis, Missouri: Prospectus and Tentative Exhibit Plan," Sept. 1, 1936, Jefferson National Expansion Memorial box, NPS History Collection; Peterson, "A Museum of American Architecture," *The Octagon* 8, no. 11 (November 1936): 3-7.
51. Museum Division monthly report, July 1941, Monthly Reports, Museum Division box, NPS History Collection.
52. Museum Division monthly report, May/June 1939, Monthly Reports, Museum Division, 1936-39 box, NPS History Collection.
53. Museum Division monthly reports, February 1941, June 1942, Monthly Reports, Museum Division box, NPS History Collection. Buffmire's work on the Kings Mountain project foreshadowed his later important contribution to the Park Service museum program.
54. Hopkins, "Testing the Ferguson Rifle," *The Regional Review* 6, nos. 1 and 2 (January/February 1941): 32-33.
55. Museum Division monthly report, March 1940, Monthly Reports, Museum Division box, NPS History Collection.
56. Branch of Research and Information report, October-November 1938, *ibid.* Reportedly Ickes also remarked that he did not want to see any of "those damn Park Service uniforms" around the museum either.
57. Letter, Burns to Yeager, Feb. 26, 1937, 1937 Museums folder, Annual Reports, Branch of Interpretation box, NPS History Collection; "Book of Museum Procedure" in Exhibit History 1939-40 box, *ibid.*
58. Reports of Ford's Theatre and Western Museum laboratories for June-July 1940 and Museum Division for July 1940, Monthly Reports, Museum Division box, NPS History Collection. Partially in recognition of the manual's value, the Museums Association, London, designated Burns a fellow in 1952. In the mid-1960s the director of a leading provincial museum in Great Britain asked the writer for a personal copy, saying it had been the museological bible of his nurture.
59. Museum Survey of 1939-40 folder, Exhibit History 1939-40 box, NPS History Collection.
60. Branch of Research and Information report for October-November 1938, Monthly Reports, Museum Division 1936-39 box, NPS History Collection.
61. As an unfortunate side effect of the appointment, a jealous colleague accused Bauss of involvement in Nazi espionage. After a grueling investigation the FBI cleared him of all suspicion. The incident destroyed trust in his accuser.
62. Museum Division monthly report, May/June 1939, Monthly Reports, Museum Division 1936-39 box, NPS History Collection; report for June/July 1940, *ibid.*
63. Museum Division monthly reports, February-April and July 1941, February and July 1942, Monthly Reports, Museum Division box, NPS History Collection.

64. Museum Division monthly reports, September-December 1941 and January-March 1942, *ibid.* The staffing crisis underlined the close relationships that had developed between the Museum Division and the Branch of Historic Sites under Ronald Lee. When he learned of the situation, Lee made a historian's position available in St. Louis. Lewis thus went there as a historical technician rather than as a curator.

65. *Museum News* 20, no. 13 (Jan. 1, 1943): 1, 4, 5; *ibid.* 21, no. 14 (Jan. 15, 1944): 7-8.

66. "Summary of Activities, Field Division of Education, Berkeley, California, from July 1933 to March 1935," Annual Reports, Branch of Interpretation box, NPS History Collection.

67. *Ibid.* Russell also played a leading role in the western PWA projects, especially Moraine Park and Scotts Bluff, until his detail to Washington.

68. Letter, Russell to Hall, Jan. 18, 1936, 1936 Museums folder, *ibid.*

69. Ned J. Burns, *Field Manual for Museums* (Washington: National Park Service, 1941), pp. 15-17; Museum Division monthly reports, May-October 1939, Monthly Reports, Museum Division 1936-39 box, NPS History Collection.

70. Letters, Russell to Betty Russell, Aug. 23, Sept. 7, 1935; Monthly Reports, Museum Division box, NPS History Collection; Western Museum Lab Reports box, *ibid.* "I do not want a gang of several hundred louts on my hands," Russell wrote his wife. "I am not yet reconciled to dropping my standards to the point of taking on these relief workers."

71. *Park Service Bulletin* 7, no. 5 (June 1937): 8; *ibid.* no. 6 (July 1937), p. 9.

72. Monthly Reports, Museum Division box, NPS History Collection; Western Museum Lab Reports box, *ibid.* After all the labor that went into it, the bibliography elicited criticism from John Merriam.

73. *Ibid.*

74. *Ibid.*

75. "Miscellaneous Products Available to National Parks and Monuments from Western Museum Laboratories," WML, WPA Prop. Products Cat. box, NPS History Collection; memorandum, Yeager to All Field Offices, May 13, 1941, *ibid.*

76. Monthly Reports, Museum Division box, NPS History Collection; Western Museum Lab Reports box, *ibid.*

77. *Ibid.*

78. *Ibid.* See reports for August 1938, February, March, June, August, September, November 1939, January, March-September, November 1941.

79. Monthly Reports, Museum Division box, NPS History Collection.

80. Memorandum, Arno B. Cammerer to Washington and All Field Offices, Mar. 13, 1940, Museum Policy binder, NPS History Collection. The only previous formal instructions on museum record procedures seem to be those prepared for the Morristown museum in 1935; copy *ibid*.
81. "Recommendations of the Historical Technicians Conference, Region One, April 25-27, 1940," pp. 4-5, Interpreters' Conferences 1929-52 box, NPS History Collection; "Full Report of Committees, Historical Technicians Conference," p. 7, *ibid*.; "Minutes of the Historical Technicians Conference," pp. 9-10, *ibid*.; "Proceedings of the Second Park Naturalists Conference Held at Grand Canyon National Park, November 13-17, 1940," pp. 131-39, 145-49, 156-62, 228-36, 350-51, NPS History Collection.
82. Charles W. Porter III, ed., "National Park Service War Work, December 7, 1941, to June 30, 1944," p. 39, World War II, NPS, K5410 box, NPS History Collection. Huth, a refugee from Nazi Germany sponsored by the Carl Schurz Foundation, worked closely with the Branch of History during the war. As former curator of the Potsdam Palace collections, he brought the Service a far higher level of curatorial scholarship in the arts than it had known previously.
83. Memorandum, Arthur E. Demaray to All Field Offices, June 20, 1941, Museum Memos 1941 folder, Exhibit History 1941-59 box, NPS History Collection; Museum Division monthly reports, November and December 1941, January 1942, Monthly Reports, Museum Division box, *ibid*.
84. Burns, "Wartime Loss of Valuable Objects and Records through Misguided Salvage Efforts," *Museum News* 20, no. 16 (Feb. 15, 1943): 7-8; Porter, "National Park Service War Work," pp. 39-41.
85. Memorandum, Hillory A. Tolson to Director's Office and the Regional Directors, June 29, 1945, Project Construction Program-General folder, Unlabeled Museum Files box, NPS History Collection.
86. In January 1946, for example, Burns arranged Ralph Lewis's detail from Jefferson National Expansion Memorial to Great Smoky Mountains National Park to collaborate with park naturalist Arthur Stupka in preparing a museum prospectus.
87. "Proceedings of the Second Park Naturalists Conference," pp. 335-46, 359; Burns, "Park Museums and Public Morale," *Museum News* 19, no. 10 (Nov. 15, 1941): 11-12; "Practical Aspects of Park Museum Problems in Time of War," Exhibit History, 1941-59 box, NPS History Collection; Ralph H. Lewis, "Designing an Exhibit of American Democracy in a National Park," *Museum News* 21, no. 14 (Jan. 15, 1944): 7-8; Frank A. Kittredge, "Yosemite During the War Years," *Yosemite Nature Notes* 25, no. 5 (May 1946): 73-76.
88. Porter, "National Park Service War Work," pp. 31, 33-34; Jefferson National Expansion Memorial boxes, NPS History Collection.